

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: June 18, 1997  
Date Received: June 11, 1997  
Project: Metro Grab, PO #M57492  
Date Samples Extracted: June 12, 1997  
Date Extracts Analyzed: June 16, 1997

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE  
FOR CHROMIUM, COPPER, NICKEL, AND ZINC  
USING METHOD 6010**

**Samples Processed Using Method 3005A**  
Results Reported as µg/L (ppb)

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M57492	0.28	0.24	0.28	<0.05
Method Blank	<0.05	<0.05	<0.05	<0.05

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ENVIRONMENTAL CHEMISTS

Date of Report: June 18, 1997  
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**QUALITY ASSURANCE RESULTS FOR  
 THE ANALYSIS OF WATER SAMPLES  
 FOR TOTAL METALS BY  
 INDUCTIVELY COUPLED PLASMA (ICP)  
 (METHOD 6010)**

Laboratory Code: 78737 (Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.28	0.28	0	0-20
Copper	mg/L (ppm)	0.24	0.24	0 a	0-20
Nickel	mg/L (ppm)	0.28	0.28	0	0-20
Zinc	mg/L (ppm)	<0.05	<0.05	nm	0-20

Laboratory Code: 78737 (Matrix Spike)

Analyte:	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	Relative Percent Difference
Chromium	mg/L (ppm)	5	0.28	95	95	80-120	0
Copper	mg/L (ppm)	5	0.24	92	90	80-120	2
Nickel	mg/L (ppm)	10	0.28	94	94	80-120	0
Zinc	mg/L (ppm)	5	<0.05	94	97	80-120	3

Laboratory Code: Spike Blank

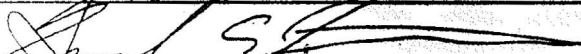
Analyte:	Reporting Units	Spike Level	% Recovery MS	Acceptance Criteria
Chromium	mg/L (ppm)	5	101	80-120
Copper	mg/L (ppm)	5	95	80-120
Nickel	mg/L (ppm)	10	101	80-120
Zinc	mg/L (ppm)	5	103	80-120

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.



a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

LNS AI  
6/11/97 1:40pm

*Send Report To:*

SITE NO.		PROJECT NAME		PURCHASE ORDER #	
7238		metro Grab		M 54792	
SAMPLERS (signature)				PROJECT LOCATION	
				3200 6th Ave S.	
REMARKS				SAMPLE DISPOSAL INFORMATION	
				<input type="checkbox"/> Dispose after 30 days	
				<input checked="" type="checkbox"/> Return Samples	
				<input type="checkbox"/> Call for Instructions	

[illegible]

SIGNATURE	PRINT NAME	COMPANY	Date	Time
Relinquished by: 	GERALD Thompson	ACLW	6/11/87	1:40
Received by: 	Sam Ballischewitz	FBI	6/11/97	1:40
Relinquished by:				
Received by:				

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D.  
Beth Albertson, M.S.  
Charlene Jensen, M.S.  
Bradley T. Benson, B.S.  
Kurt Johnson, B.S.  
Melanie Kirol, B.S.  
June 18, 1997

3012 16th Avenue West  
Seattle, WA 98119-2029  
TEL: (206) 285-8282  
FAX: (206) 283-5044  
e-mail: fbi@isomedia.com

**INVOICE # 97ACU0618-2  
DUPLICATE COPY**

Accounts Payable  
Alaskan Copper Works  
628 South Hanford St.  
Seattle, WA 98134

RE: Project Metro Grab, PO #M57492: Results of testing requested by Gerry Thompson, Project Manager for material submitted on June 11, 1997.

1 water sample analyzed for  
Chromium, Copper, Nickel, Zinc  
using Method 6010 @ \$65 per sample

\$ 65.00

Amount Due .....

\$ 65.00

FEDERAL TAX ID #(b) (6)



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e-mail: fbi@isomedia.com

June 18, 1997

Gerry Thompson, Project Manager  
Alaskan Copper Works  
628 South Hanford St.  
Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on June 11, 1997  
from your Metro Grab, PO #M57492 project.

We appreciate this opportunity to be of service to you and hope you will call if you  
should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

A handwritten signature in black ink, appearing to be 'Kurt Johnson', written over a horizontal line.

Kurt Johnson  
Chemist

keh

Enclosures  
ACU0618R.DOC